# FNH USA

## OWNER'S MANUAL

PS90 Carbine

❖ Cover Ejection Door Operating Procedure:

1. With your weapon pointed in a safe direction, place the safety on!
2. Remove the magazine from your weapon
3. Clear your weapon by pulling on the charging handle. Visually verify that the chamber is empty of a live round
4. Pull on the charging handle until the operating bolt group clears the ejection well and hold open
5. With your free hand, accessing the cover through the ejection port well, push the ejection door cover up until it snaps in place
6. Slowly release the operating bolt group until it stops on the ejection door cover
7. To release the bolt/ operating group pull on the charging handle all the way and release, the cover ejection door will open. Do not put any finger in the path of the bolt!

Warning!

❖ Do not put any finger in the path of the operating bolt group

Serious injury could occur!

## NEW GUN OWNER'S RECORD

Model : .....

Serial number (*) : .....

Date of purchase : .....

Purchased from : .....

Purchase price : .....

(*) *The serial number of your carbine has been engraved in the front left side of the barrel support and optical sight group.*

*The descriptions and illustrations in this owner's manual may differ slightly from the present configuration of the product. This would reflect the constant evolution of the product during its industrial life.*

*Data in this manual is technical only and of no contractual value.*

***Caution :***

*This manual has been written exclusively for the FN HERSTAL PS90 Carbine.*

*Warnings and instructions are different for each type of gun*

*If your FN HERSTAL carbine has an inscription other than "PS90 cal 5.7x28" on the rear left side of the barrel support and optical sight group or if the external appearance of the carbine does not correspond to the illustrations of this manual, you must contact your dealer / departmental armorer or write us immediately to obtain the free owner's manual that has been written specifically for your carbine.*

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## Foreword

We are pleased that you have purchased a single-shot FN HERSTAL PS90 Carbine.

The light, easy-to-use and fully ambidextrous PS90 Carbine stands for the highest level of reliability, consistent performance and functional design and provides the operating precision and safety expected from a personal defence firearm.

*The carbine complies with the latest technical evolutions in firearm design for law enforcement and sporting use and has been manufactured from space-age corrosion-resistant materials.*

*It has been conceived based on the experience of a whole team of experts in every field related to carbines.*

Innovative in design and very compact, the carbine is very easy to maintain : with a reasonable amount of care, your FN HERSTAL PS90 should give you many years of dependable, enjoyable service.

In order to take maximum advantage of the many features of your FN HERSTAL PS90, regularly review this Owner's Manual which should be kept in the slot especially provided in the storage box of the carbine.

Please feel free to write us if you have any observation or question regarding the performance or the operation of your carbine.

Thank you

***Safety and warranty notes***

*Like all firearms, the PS90 Carbine, if handled in a careless or reckless manner, can be very dangerous.*

*For that reason, the carbine has been sold under the express understanding that FN HERSTAL declines any responsibility and invalidates any guarantee and liability claims for incidental or consequential damages (injuries, loss of use of property, commercial loss, loss of earnings and profits, ...) resulting in whole or partly from :*

- *a discharge with criminal intent or through negligence*
- *improper or careless handling*
- *unauthorized servicing*
- *the modification or the alteration of the basic carbine design*
- *the use of non-original parts*
- *the alteration of the safety devices*
- *the use of incorrect "arms & ammunition" combinations*
- *the use of defective, damaged, unsafe, ... ammunition*
- *an inadequate care of the carbine (e.g. corrosion, damage)*
- *a disregard of malfunctions*
- *a resale in contradiction to legislation*
- *other circumstances beyond our direct and immediate control*

*FN HERSTAL reserves the right to refuse servicing a carbine which has been modified (removal of metal from the barrel, modifications of the firing mechanism and/or other parts, ...) and will, in such a case, always recommend to restore the carbine to its original specifications. Parts and labor required for such a restoration are payable by the owner of the carbine.*

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## 1. SAFETY INFORMATION

As a carbine owner, you accept a set of demanding responsibilities. How seriously you take these responsibilities can mean the difference between life and death.

There is no excuse for careless or abusive handling of any firearm. At all times, handle your PS90 and any other firearm with intense respect for its power and potential danger.

**Read and understand the cautions and proper handling procedures outlined in this booklet before using your new firearm.**

☑ Always keep the muzzle of your carbine pointed in a safe direction.

*Never point any firearm at anything you do not intend to shoot. Be extremely alert and aware of all persons and property within the range of your ammunition.*

☑ Never rely totally on your firearm's mechanical "safety" devices.

*Always assume that your carbine can be fired at any time, even with all safety mechanisms engaged.*

*The fire selector is the only apparent external safety device of the PS90 Carbine : when this fire selector is at the position 'S' (safe), it is impossible to operate the trigger.*

*The PS90 has also several passive safety mechanisms that enhance safety.*

*As with other carbines, you must always treat your PS90 as ready-to-fire, and only load a round and cock the carbine when shooting is imminent.*

*Like any mechanical device, a "safety" can sometimes fail; it can be jarred or inadvertently manipulated into an unsafe condition.*

*Mechanical "safeties" merely aid safe gun handling and are no excuse for pointing your carbine's muzzle in an unsafe direction.*

*Safe gun handling does not stop with your carbine's mechanical "safety" devices : it starts there. Always treat this carbine with the respect due to a loaded, ready-to-fire carbine.*

☑ Avoid carrying your PS90 with a round in the chamber.

*For good safety practice, it is recommended that a round is not chambered until immediately before you will fire the carbine.*

*If it is nevertheless necessary to carry the PS90 with a round in the chamber, set the fire selector at the position 'S' (safe).*

*For law enforcement personnel, refer to the procedures of your department on carrying a loaded carbine with a round in the chamber.*

☑ Whenever you handle your PS90, or hand it to someone, make sure it is completely unloaded.

*To fully unload your PS90, proceed as described in § 4.5.*

*It is vital that, when unloading, you remove the magazine from your carbine so that a round is not automatically chambered when releasing the cocking handle.*

*Always keep the chamber empty unless shooting is imminent.*

☑ Do not transport your carbine loaded.

*Keep it unloaded, whether carried on a sling, in a gun carrying bag or another kind of container.*

*For law enforcement personnel, refer to the procedures of your department on carrying a loaded carbine.*

☑ Beware of barrel obstructions.

*When preparing to shoot your carbine, check for a barrel obstruction as follows : first fully unload the carbine as described in § 4.5.*

*Be certain no live round is in the chamber !*

*Then glance down the barrel to be sure it is clear of any obstruction. It takes only a small obstruction to dangerously increase pressures. Before the first firing, clean the bore with a cleaning rod and rag, and wipe away any anti-rust compounds in the chamber and around the breech block.*

☑ Be alert to the signs of ammunition malfunction.

*If you detect an off sound or light recoil when a round is fired, fully unload the carbine as described in § 4.5.*

*With the cocking handle pulled and held rearwards and the chamber empty, glance down the barrel to make sure that an obstruction does not remain in the barrel.*

*If there is an obstruction, completely clear the barrel before loading and firing again.*

*Failure to follow these instructions can cause extensive damage to your carbine and possible serious injury to yourself and others.*

☑ Be certain your carbine is completely unloaded before cleaning.

*Because so many gun accidents occur when a firearm is being cleaned, special and extreme care should be taken to be sure your carbine is unloaded before disassembly, cleaning and reassembly.*

*Keep ammunition away from the cleaning location. Never test the mechanical function of any firearm with live ammunition.*

☑ Always completely unload your carbine when not in use.

*Your responsibilities do not end when your firearm is unattended. Store your carbine and ammunition separately and well beyond the reach of children.*

*Take all safeguards to ensure that your carbine does not become available to untrained, inexperienced or unwelcome hands.*

*At all times, comply with the local and state laws.*

*For law enforcement personnel, refer to the procedures of your department on storing your carbine.*

☑ Make sure of adequate ventilation in the area that you discharge a firearm. Wash hands thoroughly after exposure to ammunition or cleaning a firearm.

*Lead exposure can be obtained from discharging firearms in poorly ventilated areas, cleaning firearms or handling ammunition. Lead is a substance that has been known to cause birth defects, reproductive harm and other serious injury.*

☑ Use the proper ammunition.

*The barrel and the breech block of this carbine have been made with substantial safety margins over the pressures developed by the 5.7 x 28 mm ammunition especially conceived by FN HERSTAL.*

*However, FN HERSTAL assumes no liability for accidents which occur through the use of rounds of different caliber or not fabricated according to the FN HERSTAL standards.*

*FN HERSTAL cannot assume any responsibility for the use of unsafe or improper arms and ammunition combinations. It is your responsibility to read and heed all warnings in this owner's manual and on ammunition boxes.*

☑ Examine every round you put in your PS90 Carbine.

*Your PS90 Carbine is designed and chambered for 5.7 x 28 mm rounds. The chambering for your carbine is printed clearly on the frame and the barrel.*

*Failure to use correct ammunition may result in serious injury to yourself or others.*

☑ Before dry-firing, visually and physically check if the chamber is empty.

☑ Treat every carbine with the respect due to a loaded gun, even though you are certain the gun is unloaded !

☑ Keep your fingers away from the trigger while unloading, loading and removing the magazine.

*Only touch the trigger when you are ready to shoot.*

☑ Be sure of your target and backstop.

*Take additional care during low light periods. Know the range of your ammunition. Never shoot at water or hard objects.*

☑ Dropping your PS90 or any other gun when loaded can cause an accidental discharge.

*Although the PS90 Carbine has been provided with a special safety device to prevent firing when it is accidentally dropped on its flash-hider (even when it is cocked), be extremely careful, like with any other firearm, to avoid dropping the carbine.*

☑ Always set the fire selector at the position 'S' (safe) before crossing a fence, climbing a tree, jumping a ditch or negotiating other obstacles with a loaded and/or cocked carbine.

*Never place your carbine on a car or on any unstable object.*

*For law enforcement personnel, refer to the procedures of your department.*

☑ If your PS90 fails to fire, keep the muzzle pointed in a safe direction.

*Hold this position for a minimum of 30 seconds. Remove the magazine. Carefully pull the cocking handle rearwards and remove the round.*

*If the primer is indented, the round should be disposed of in a way that it cannot cause harm.*

*If the primer is not indented, completely unload the carbine. Your carbine should be examined by a qualified gunsmith / your departmental armorer and the cause of the malfunction should be corrected before further use.*

☑ Wear eye and ear protection when shooting.

*Unprotected, repeated exposure to gunfire can cause hearing damage. Wear ear protectors (shooting earplugs or muffs) to guard against such damage.*

*Wear shooting glasses to protect your eyes from flying particles. Always keep a safe distance between the muzzle of your firearm and any persons nearby, as muzzle blast, debris and ejecting shells could inflict serious injury.*

*Also, wear eye protection when disassembling and cleaning your carbine to prevent the possibility of springs, spring-tensioned parts, solvents or other agents from contacting your eyes.*

☑ Be defensive and on guard against unsafe gun handling around you and others.

*Don't be timid when it comes to gun safety. If you observe other shooters violating any of these safety precautions, politely suggest safer handling practices.*

☑ Supervise and teach firearms safety to all members of your family.

*This is especially important when children and non-shooters are involved. Closely supervise newcomers to the shooting sports. Encourage enrollment in shooting safety courses.*

☑ Never drink alcoholic beverages or take any type of drugs before or during shooting.

*Your vision and judgment could be dangerously impaired, making your carbine handling unsafe to you or to others.*

☑ Periodic maintenance : avoid unauthorized servicing.

*Your PS90 is a mechanical device which will not last forever, and as such, is subject to wear and requires periodic inspection, adjustment, and service. Like all FN HERSTAL firearms, your carbine should be serviced by a FN HERSTAL Recommended Service Center.*

*FN HERSTAL cannot assume any responsibility for injuries suffered or caused by unauthorized servicing, alterations or modifications of FN HERSTAL firearms.*

☑ FN HERSTAL reserves the right to refuse service on firearms that have been altered, added to or substantially changed.

*Removal of metal from the barrel or modifications of the firing mechanism and/or operating parts may lead to FN HERSTAL's refusal of service on such firearms. FN HERSTAL will charge the owner for parts and labor to return the firearm to original FN HERSTAL specifications.*

☑ The PS90 has been provided with a tritium sight which should be handled with care, taking into account the basic safety rules applying to low-radioactive devices.

*The tritium sight has been designed to withstand normal operational conditions without any risk of damage.*

*In the event of an (accidental) breakage of the tritium light source, ventilate the room and then, without touching them directly with the fingers, put the broken fragments of the tritium light source as well as the carbine in a plastic bag. After that, wash your hands thoroughly and, taking all the necessary precautions, bring or send the plastic bag to your dealer / departmental armorer.*

**Read and heed all warnings in this owner's manual, on ammunition boxes and with all accessories that you install on your firearm.**

**It is your responsibility to secure the most up-to-date information on the safe handling procedures for your FN HERSTAL carbine.**

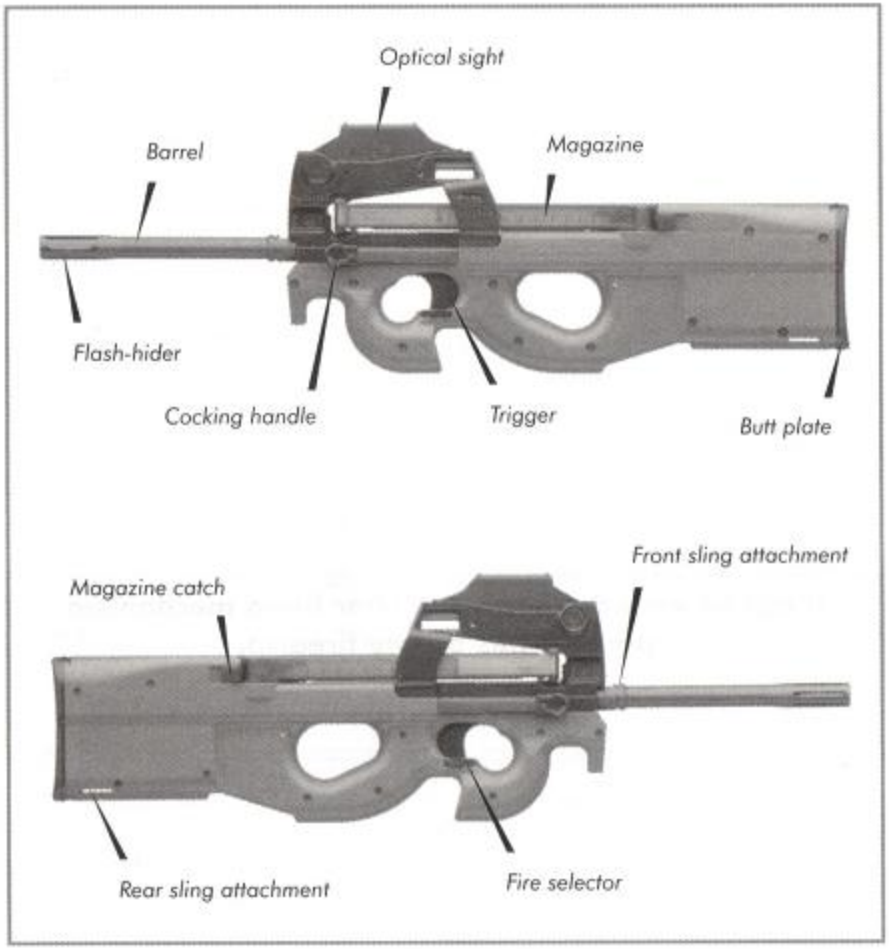
**FN HERSTAL assumes no liability for incidents which occur when unsafe or improper gun accessories or ammunition combinations are used.**

**It can be very dangerous to alter firing mechanism parts of this or any firearm.**

**BE CAREFUL !**

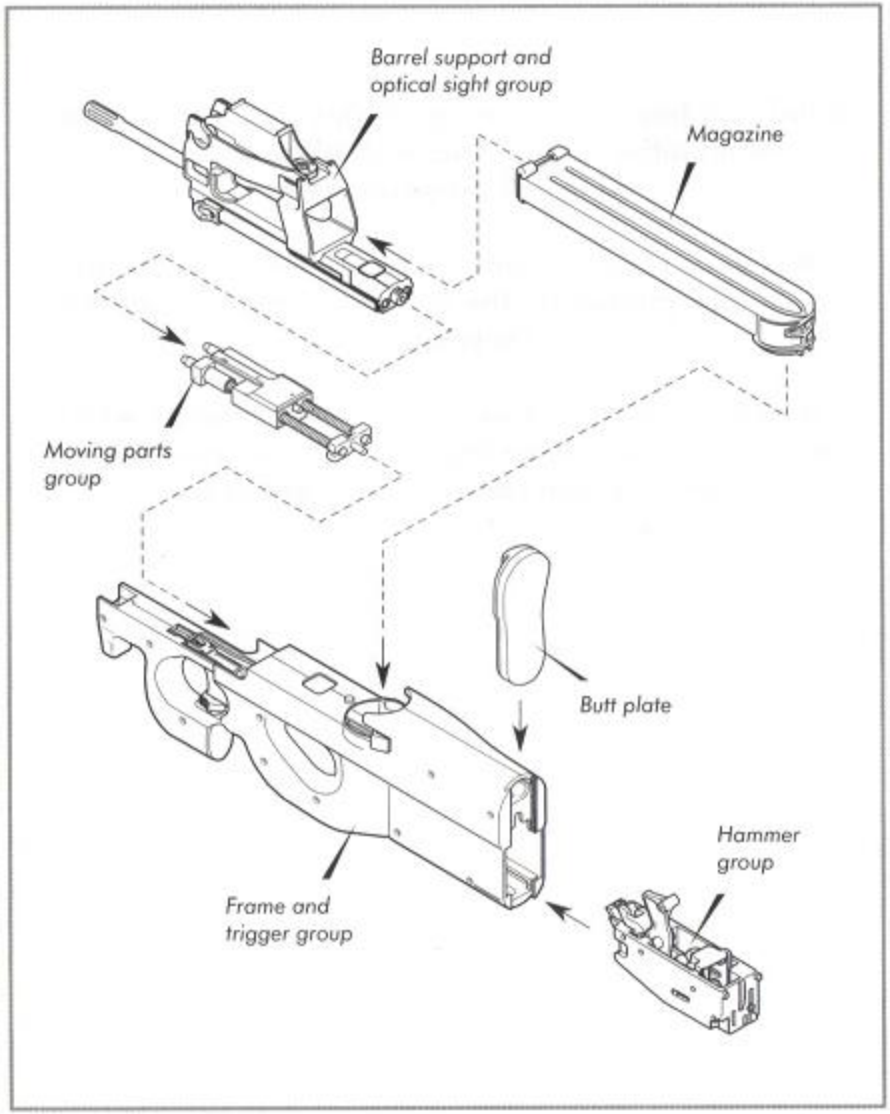
# 2. TECHNICAL INFORMATION

## 2.1. Nomenclature




*In this manual, it is assumed that the muzzle of the barrel points towards the "front", the butt plate is at the "rear" and the optical sight is "on top".*

## 2.2. Exploded view



## 2.3. Functioning

### General

The PS90 Carbine is a new-concept, compact, lightweight personal defence firearm firing 5.7 x 28 mm ammunition and featuring extremely low recoil.

The reliable operation of the PS90 Carbine is ensured by a straight blow-back mechanism, designed to operate in the most rigorous field conditions.

With a loaded magazine and after having been cocked, the carbine will fire single shots until the magazine and the chamber are empty.

*Features :*

- *Compact dimensions*
- *Completely ambidextrous*
- *Ergonomically shaped*
- *Downward ejection of the empty cases*

The rounds loaded from the magazine are automatically chambered : the force for that operation is supplied by the return movement of the breech block.

### Composition

The PS90 Carbine consists of the following assemblies and components (also refer to the exploded view in § 2.2) :

- The barrel support and optical sight group

  *The barrel support and optical sight group fits into position on top of the front part of the frame and consists of the barrel, its support and the optical sight.*

- The frame and trigger group

  *The frame and trigger group consists of a polymer frame onto which the fire selector and the trigger system have been installed.*

  *The bottom of the frame has been provided with the empty cases ejection opening.*

- The moving parts group

  *The moving parts group converts the recoil energy generated when firing a round into the kinetic energy necessary for the operation of the carbine.*

- The hammer group

  *The hammer group controls the firing operation of the firearm.*

- The magazine

  *The magazine is fitted on top of the frame, above the barrel and the moving parts.*

  *For more information, refer to 'Magazine' further in this paragraph.*

- The butt plate

## Fire selector

The operation of the PS90 Carbine depends on the setting of the fire selector.

The fire selector can be set at one of the following 2 positions :

- The position 'S' (safe)

  When the fire selector is at this position, it is impossible to operate the trigger.

  *The position 'S' should be selected in one of the following cases :*

  - *When the PS90 Carbine is not operational*
  - *When preparing the PS90 Carbine for operation in the semi-automatic firing mode*

- The position '1' (single-shot) : 'semi-automatic firing mode'

  When in this mode, the PS90 Carbine fires semi-automatically : on the condition that the carbine has been loaded and cocked as described in § 4.3, one shot will be fired for each trigger pull.

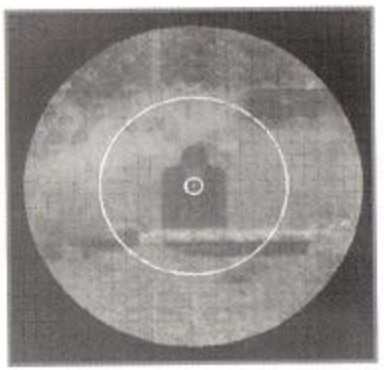
## Optical sight

The optical sight is an integrated sight, without magnification, which allows fast, easy and accurate acquisition of the target.

*As the optical sight does not magnify the image, you can keep both eyes open when shooting, resulting in a much greater field of view.*

In normal daylight conditions, accurate aiming can be performed by using the 'daylight reticle' generated by the optical sight.

The aiming performance is fully retained in low-light conditions by a 'low-light' reticle consisting of aiming cross-hairs generated by an incorporated tritium light source.



*Daylight reticle*

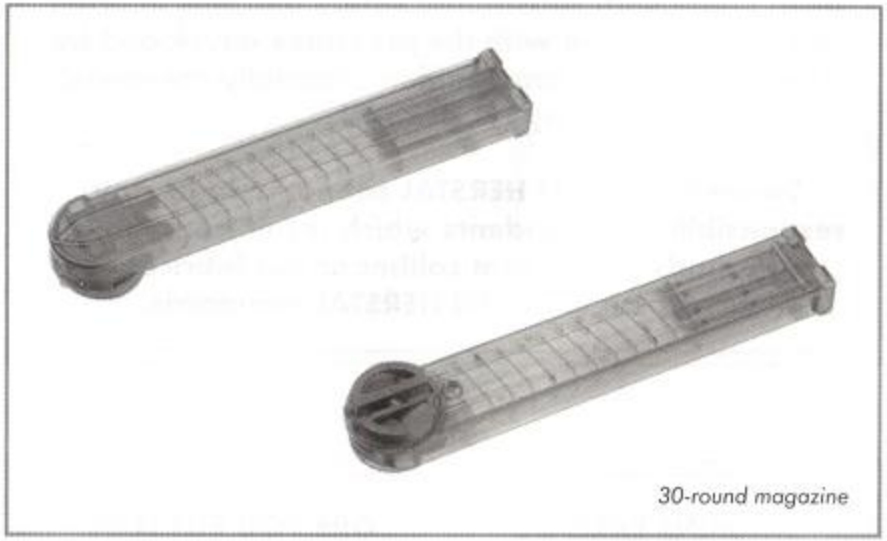
*Low-light reticle*

## Magazine

The magazine, with a capacity of 30 cartridges, is fitted, with its rounded end towards the rear side, on top of the frame of the carbine, above the barrel and the moving parts.

*The rounded end of the magazine case has been designed so that it is accepted by the front side of the magazine catch.*

The rigid, translucent, polycarbonate magazine case allows you to estimate instantly the number of cartridges present in the magazine.



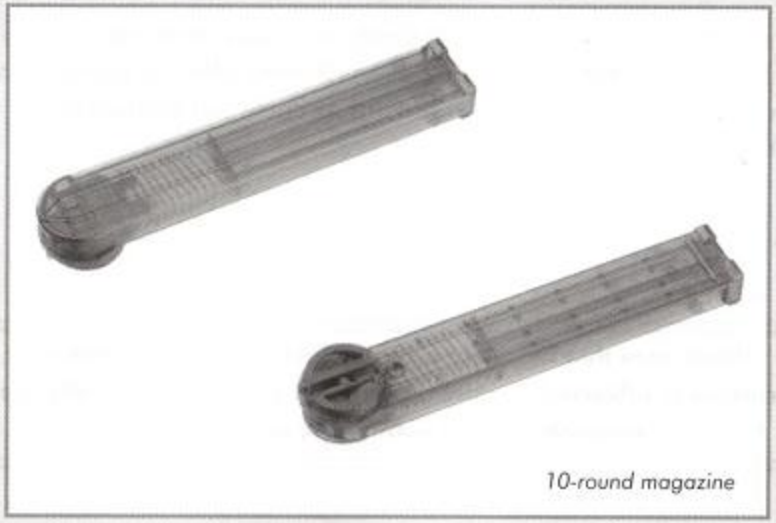
*30-round magazine*

*The magazine type is unique for the carbine type and should not be used on other ones. No other magazine type should be used on your carbine.*

Some states limit the magazine capacity to 10 rounds.

All PS90 Carbines sold in those states will be shipped with magazines with reduced total magazine capacity in compliance with the current state law.

*The illustrations below show a 10-round magazine : make sure you have verified the capacity of your magazine before installing it onto your carbine.*



*10-round magazine*

## Safety features

The fire selector is the only apparent external safety device of the PS90 Carbine : when this fire selector is at the position 'S' (safe), it is impossible to operate the trigger.

The PS90 Carbine has however also been provided with an internal safety sear which ensures that, during the forward movement of the moving parts, the hammer is blocked until the breech block has reached its most forward position : this avoids any risk of accidental firing when the carbine is (involuntarily) dropped.

The safety features of the PS90 Carbine ensure that the carbine can be carried safely and that it nevertheless offers a permanent, rapid firing readiness without having to carry out complicated manipulations.

**Please note that failure of a safety device can occur when the carbine is subjected to extreme forces or conditions normally not encountered in a normal use environment.**

## Ammunition

The PS90 Carbine should only be used with 5.7 x 28 mm ammunition.

*This is indicated by the inscription engraved in the rear left side of the barrel support and optical sight group.*

**The barrel and the breech block of this carbine have been made with substantial safety margins in order to be able to cope with the pressures developed by the 5.7 x 28 mm ammunition especially conceived by FN HERSTAL.**

**Nevertheless, FN HERSTAL cannot assume any responsibility for incidents which result from the use of rounds of different caliber or not fabricated according to the FN HERSTAL standards.**

**EXAMINE EACH ROUND BEFORE YOU PUT IT IN YOUR CARBINE !**

## 3. CONTENTS OF THE STORAGE BOX

The carbine is supplied in a practical storage box.

The storage box contains the following items :

- A carbine
- A 30-round magazine

  *The magazine capacity is reduced to 10 rounds if required by law.*

- An owner's manual
- A safety lock + 2 keys

  *Use the safety lock to safely store and transport the carbine (always keep the keys at a different place).*

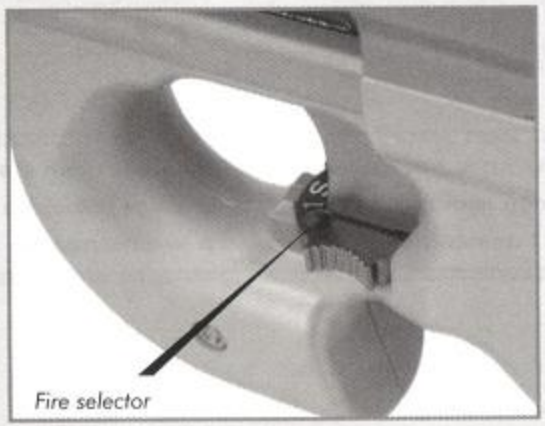
## 4. USING THE CARBINE

Before any intervention on the PS90 Carbine, ensure to be familiar with the safety information given in chapter 1 of this owner's manual.

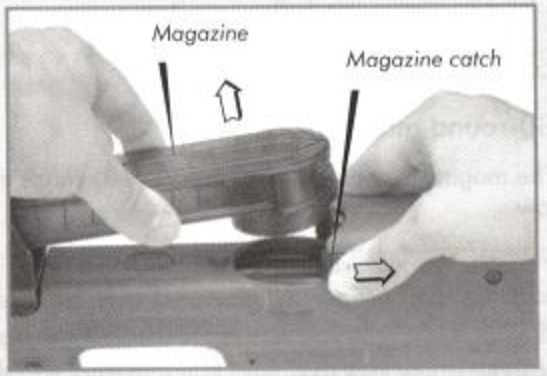
### 4.1. Safety checks

Carry out the following procedure in order to ensure that the PS90 Carbine can be manipulated, stored and/or transported without any risk :

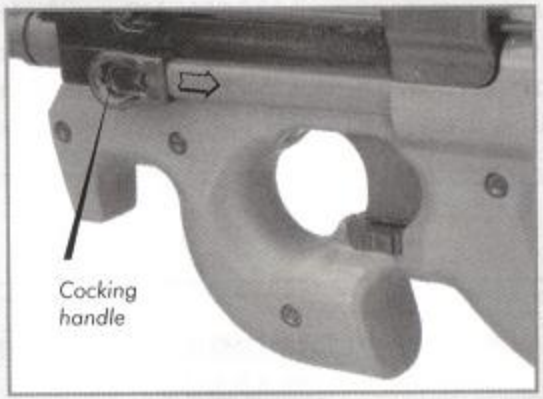
❖ Set the fire selector at the position 'S' (safe).




❖ Pull the magazine catch rearwards in order to release the magazine and then remove the magazine.

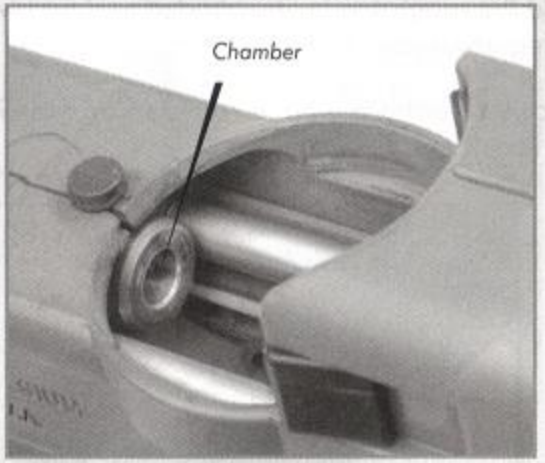



❖ Pull the cocking handle completely rearwards and hold it in that position.




*Please note that, after this operation, the hammer is cocked.*

❖ Through the magazine opening, look into the chamber of the carbine in order to ensure that there is no cartridge in the chamber.




*If there is a cartridge in the chamber, unload the carbine as described in § 4.5.*

❖ If the chamber is empty, release the cocking handle.

❖ Ensure that the magazine is empty.

*If the magazine is not empty, unload it as described in § 4.5.*

*If necessary, also unload the spare magazines.*

❖ Set the fire selector at the position '1' (single-shot).

❖ Pointing the carbine in a safe direction, pull the trigger to decock the hammer.

❖ Set the fire selector at the position 'S' (safe).

❖ Fit the empty magazine back into position.

### Initial cleaning

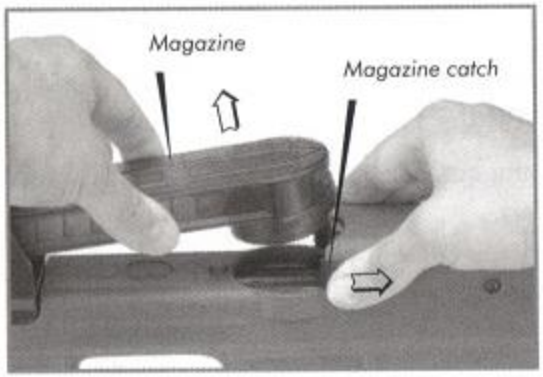
Never fire the carbine upon purchase without cleaning it first.

❖ Carry out the cleaning and lubrication procedure (see § 6).

## 4.2. Loading the magazine

*As explained under 'Magazine' in § 2.3, two kinds of magazines are available for the PS90 Carbine : a 30-round magazine and a 10-round magazine.*

❖ If the magazine to be loaded is still on the carbine, pull the magazine catch rearwards in order to release the magazine and then remove it.




**It is recommended only to load the number of cartridges you intend to shoot. If not absolutely necessary, do not reinstall the magazine onto the carbine nor load a cartridge into the chamber unless shooting is imminent. Avoid keeping a loaded magazine next to the carbine.**

**For law enforcement personnel, refer to the procedures of your department on carrying a loaded carbine with a round in the chamber.**

❖ Load the cartridges, one by one, into the magazine by proceeding as follows :

- Hold the magazine by its rounded end and with its lips facing upwards.
- Place the cartridge with its rear part on the wider part of the lips of the magazine.

*Ensure that the bullet points forwards, along the magazine body.*

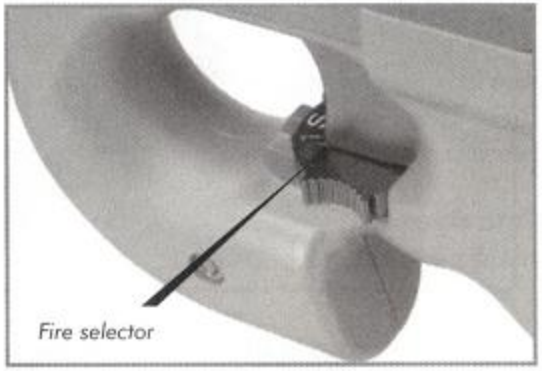
- With the thumb, push the cartridge downwards and then rearwards until it locks into position.

The transparent magazine body allows you to estimate the number of cartridges present in the magazine.

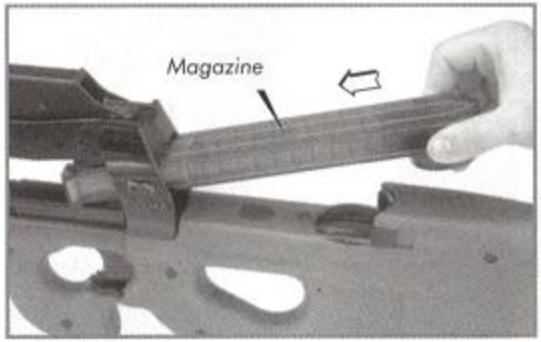
## 4.3. Loading and cocking the carbine

*It is assumed that the chamber is empty, that no magazine has been installed onto the carbine and that the carbine has not been cocked.*

❖ Set the fire selector at the position 'S' (safe).

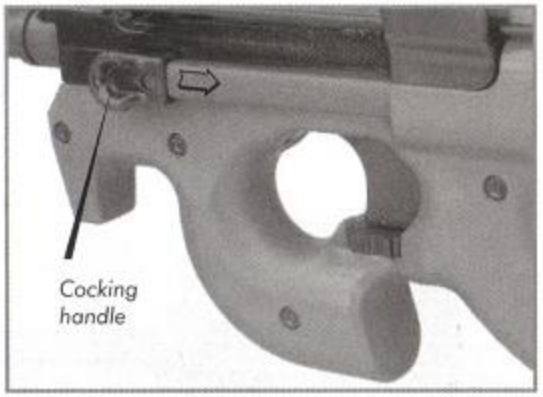



❖ Install a loaded magazine onto the carbine.




*In order to ensure that the magazine correctly locks into position, push firmly on its rear part (check if the magazine is correctly locked into position by pulling it upwards).*

❖ Pull the cocking handle completely rearwards and then release it.



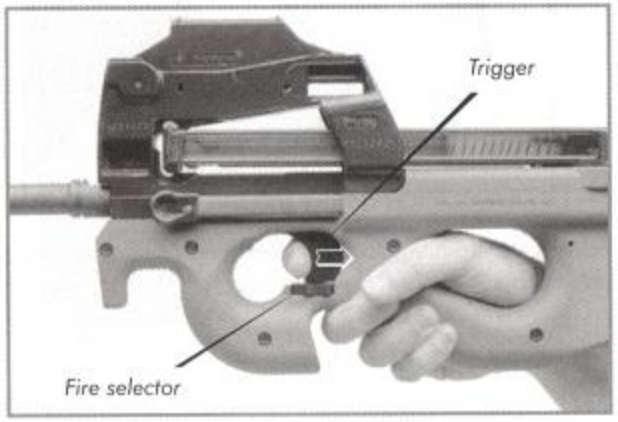

*This causes the hammer to be cocked and the first cartridge to be loaded into the chamber.*

## 4.4. Firing the carbine

*Ensure that § 6.1. "Cleaning and lubrication before firing" has been carried out.*

❖ If not already done, load and cock the carbine as described in § 4.3.

❖ Set the fire selector at the position '1'.



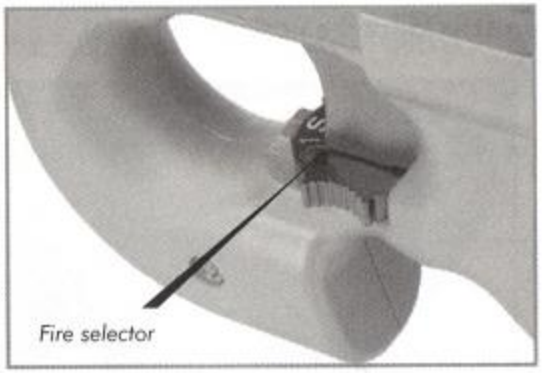

❖ Aim the carbine and then pull the trigger.

*One shot will be fired for each trigger pull.*

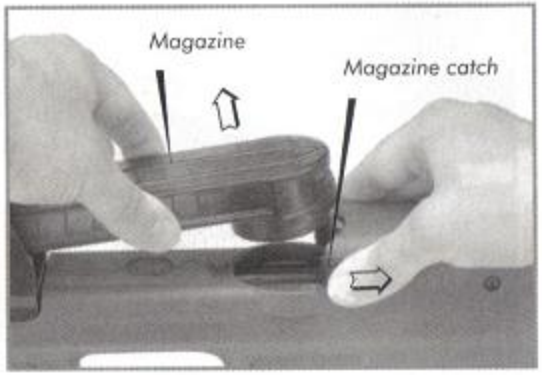
*Even with the low recoil produced by the 5.7 x 28 mm ammunition, it is recommended to hold the PS90 Carbine firmly by the trigger's grip (the grip behind the trigger).*

## 4.5. Unloading the carbine

❖ Set the fire selector at the position 'S' (safe).




❖ Pull the magazine catch rearwards in order to release the magazine and then remove the magazine.



❖ Ensure that the magazine is empty.

*If the magazine is not empty, unload it by pushing the cartridges, one by one, forwards with the thumb.*

**When the magazine is on the carbine, the last 2 cartridges and the cartridge in the chamber are not visible.**

**The magazine must therefore always be removed in order to ensure that the carbine is empty !**

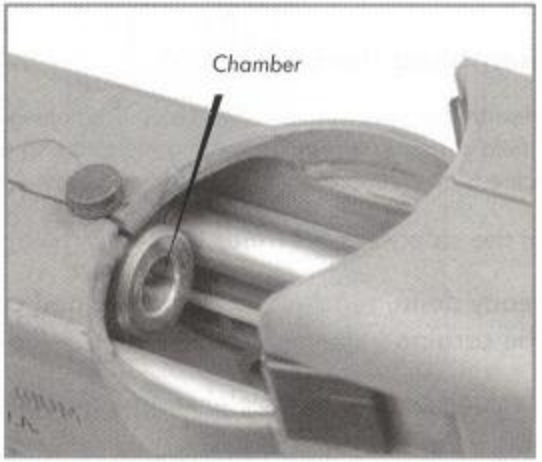
❖ Pull the cocking handle completely rearwards and then release it in order to extract and eject the remaining cartridge from the chamber.

*Repeat this operation at least 3 times in order to ensure that the chamber is empty.*

*Please note that, after this operation, the hammer is cocked.*

❖ Pull the cocking handle completely rearwards and hold it in that position.

❖ Through the magazine opening, look into the chamber of the carbine in order to ensure that there is no cartridge in the chamber.




*If there is a cartridge in the chamber, try to extract and eject it by pulling the cocking handle completely rearwards.*

❖ If the chamber is empty, release the cocking handle.

❖ Set the fire selector at the position '1' (single-shot).

❖ Pointing the carbine in a safe direction, pull the trigger to decock the hammer.

❖ Set the fire selector at the position 'S' (safe).

❖ Fit the empty magazine back into position.

## 5. FIELD STRIPPING

Before any intervention on the PS90 Carbine, ensure to be familiar with the safety information given in chapter 1 of this owner's manual.

### 5.1. Disassembling the carbine

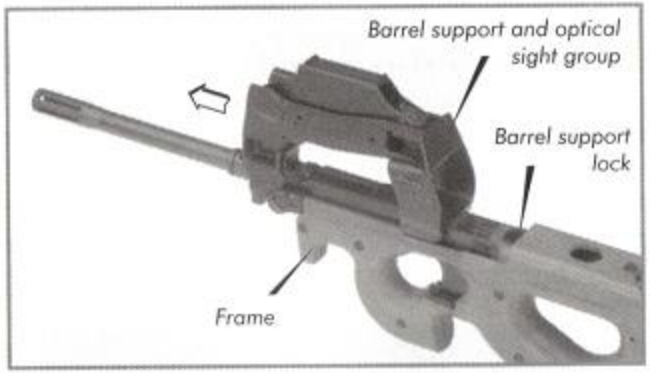
*It is very important to become familiar with the field stripping procedure of the carbine as field stripping is required during the cleaning and lubrication procedure which ensures reliable operation of the carbine.*

- Carry out the safety checks (refer to § 4.1).
- If not already done, remove the magazine and completely unload the carbine (refer to § 4.5).
- Pull the cocking handle completely rearwards and then release it.

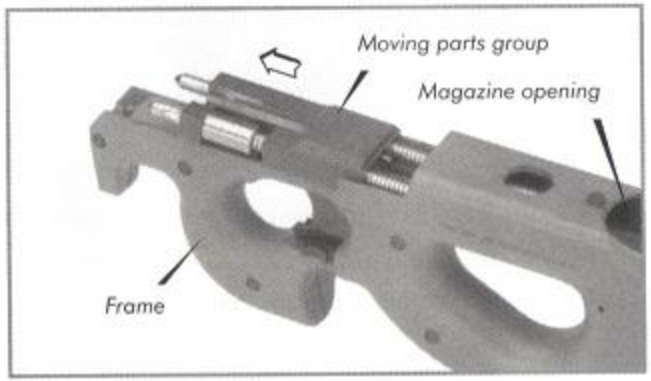
*This operation is necessary because it is only possible to remove the moving parts group and the hammer group when the hammer is at the (lowered) cocked position.*

*From now on, do not pull the trigger : the hammer would again be positioned at its (raised) decocked position.*

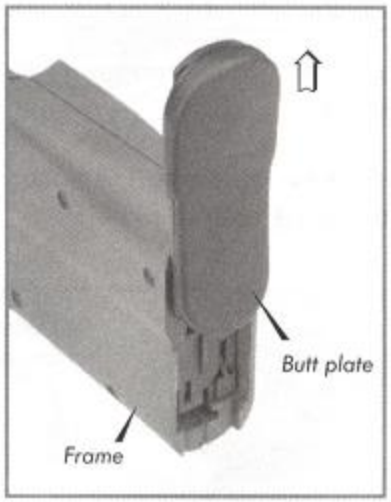
- While pushing down on the barrel support lock, release the barrel support and optical sight group by moving it slightly forwards and then slide it completely out of the frame.



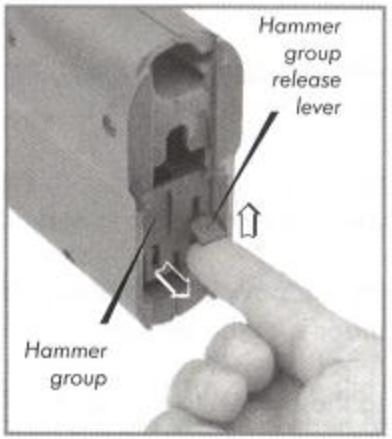

- Release the moving parts group by pushing it forwards (via the magazine opening) and then carefully slide it completely out of the frame.



❖ At the rear side, slide the butt plate up and off the frame.




❖ While raising the hammer group release lever, pull the hammer group slightly rearwards in order to release it.




After that, slide the hammer group completely out of the frame.

*Note that the hammer group cannot be removed if the hammer is at the decocked position. If the trigger has been pulled after the removal of the moving parts, reassemble the carbine, cock the hammer by pulling the cocking handle and then start disassembling again.*

**This level of disassembly is sufficient to perform thorough cleaning : further disassembly should only be carried out by an authorized armorer or by a FN HERSTAL Recommended Service Center.**

**To reassemble the carbine, follow the above steps in reverse order, taking into account the following points :**

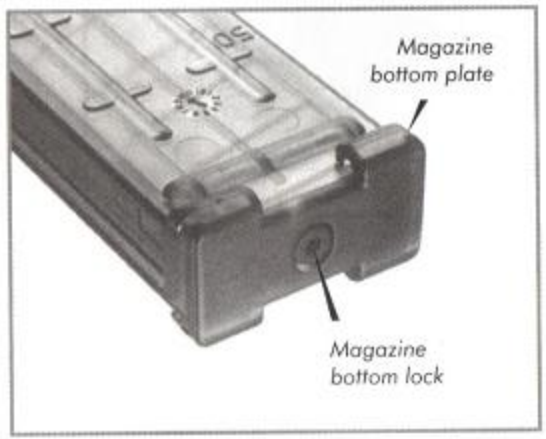
- Ensure that all the components of the carbine are perfectly clean.
- Ensure that the different groups of the carbine correctly lock into position when they are reinstalled.
- When reinserting the hammer group into the frame, hold the hammer group release lever at the raised position.
- When reinstalling the moving parts group, hold it so that the rate-of-fire stabilizer is at the left side.
- When reinserting the barrel support and optical sight group into the frame, press the barrel support lock.
- After having reassembled the firearm with an empty magazine, point it in a safe direction and then pull the trigger in order to decock the hammer.

*Before carrying out this step, ensure that the magazine and, of course, the chamber are really empty !*

## 5.2. Disassembling the magazine

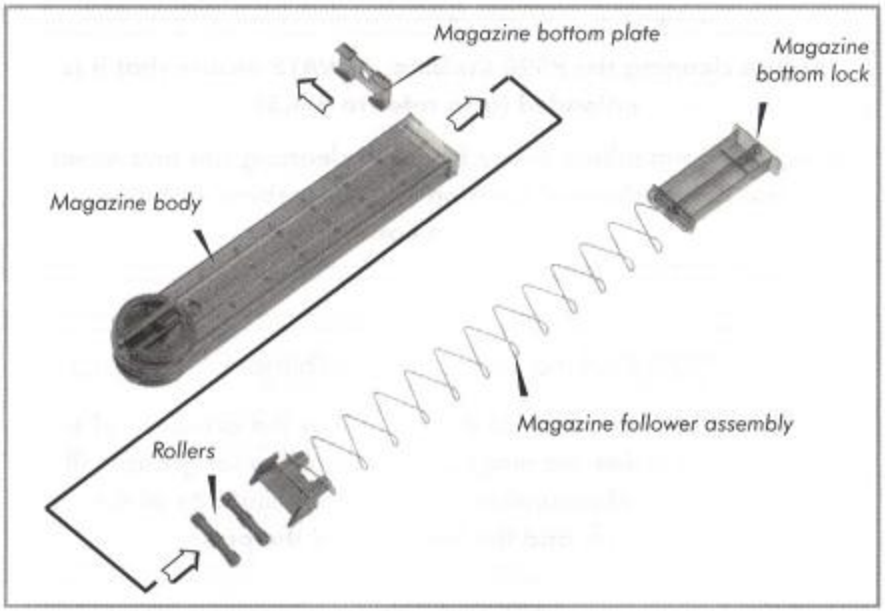
Please note that a (reduced capacity) 10-round magazine cannot be disassembled.

- If not already done, remove the magazine and completely unload it (refer to § 4.5).
- With the index, press on the magazine bottom lock through the hole in the magazine bottom plate.




While holding the magazine bottom lock in that position, move the magazine bottom plate sidewards until it is disengaged from the magazine body.

*Take into account that the magazine bottom lock is subjected to the force of the magazine follower spring.*




- Carefully release the pressure on the magazine follower assembly.
- Take the magazine follower assembly out of the magazine body.
- Hold the magazine body slightly inclined in order to remove the 2 rollers.

**This level of disassembly is sufficient to perform thorough cleaning : further disassembly should only be carried out by an authorized armorer or by a FN HERSTAL Recommended Service Center.**

**To reassemble the magazine, follow the above steps in reverse order, taking into account the following points :**

- Ensure that all the components of the magazine are perfectly clean.
- Ensure that the 2 rollers are inserted one behind the other into the magazine body.
- Ensure that the magazine follower assembly is oriented correctly.

  *Also refer to the drawing which can be found on the side of the magazine body.*

- The magazine bottom plate can only be slid back into position when the magazine bottom lock is pushed and held flush with the edge of the magazine body.
- Ensure that the magazine bottom plate correctly locks into position.

## 6. CLEANING AND LUBRICATION

Before any intervention on the PS90 Carbine, ensure to be familiar with the safety information given in chapter 1 of this owner's manual.

The frequency at which the PS90 Carbine should be cleaned and lubricated depends on the ammunition used, the weather and shooting conditions and other external factors.

When using normal ammunition under normal conditions, it is a good rule to clean and lubricate the carbine after every use or, in case of intensive shooting, after each 2000 rounds : correct maintenance will enhance the longevity of your carbine.

*Excessively dirty ammunition may require more frequent cleaning and too much dirt can affect the functioning of even the finest firearm.*

*It is important to keep your carbine clean and correctly lubricated !*

*Do not use too much lubricant as this could cause the build-up of dirt, grit or powder residue which could affect the functioning of the carbine.*

For more information about the recommended lubricants, refer to 'Lubricants and solvents' in § 9.

**Before cleaning the PS90 Carbine, ALWAYS ensure that it is unloaded (also refer to § 4.5).**

**Keep the ammunition away from the cleaning site and never test the mechanical function of your carbine with live ammunition.**

The PS90 Carbine only requires minimal lubrication.

**Excessive lubrication of the firearm or the presence of a lubricant inside the magazine or the hammer group will have an unfavourable effect on the reliability of the firearm and the longevity of the parts.**

**Never use hydrocarbons, trichlorethylene, ammonia nor teflon-based lubricants :**
**they could cause damage to your carbine !**

Before each shooting sequence, ALWAYS check the barrel for obstructions and ensure that it is dry and clean.

*Completely unload the carbine, ensure that there is no round in the chamber and then, after having cleaned its bore, glance down the barrel in order to ensure that it is free of any obstruction.*

*Take into account that the smallest obstruction can dangerously increase pressures.*

## 6.1. Cleaning and lubrication before firing

*The following procedure assumes that the PS90 Carbine has correctly been cleaned and lubricated the last time it has been used (also refer to § 6.2).*

*If the PS90 Carbine is used for the first time upon purchase, the following cleaning procedure should be carried out in order to remove the preservation lubricant.*

❖ Carry out the field stripping procedure (refer to § 5.1).

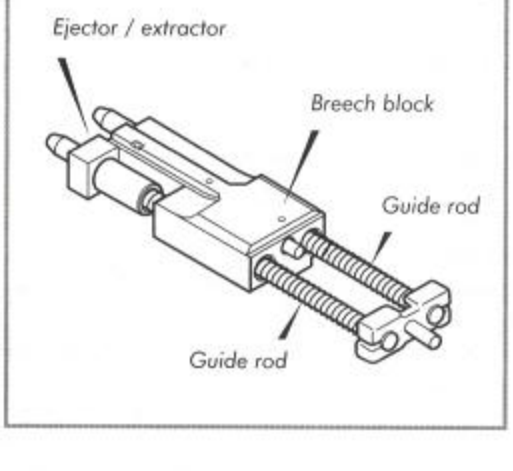
❖ Using a cleaning rag holder and clean rags (pieces of flannel), remove the maintenance lubricant from the bore of the barrel until the last rag is clean.

❖ Dry the bore of the barrel.

❖ Remove the maintenance lubricant from the moving parts group.

❖ Slightly lubricate the moving parts group by proceeding as follows :

- Apply 2 drops of functional lubricant to each guide rod, just behind the breech block.
- Move the breech block at least three times back and forth.
- Apply 1 drop of functional lubricant to the ejector, to the extractor and to the holes of the breech block.




*The other parts of the carbine do not require lubrication.*

❖ Reassemble the carbine.

## 6.2. Cleaning and lubrication after firing

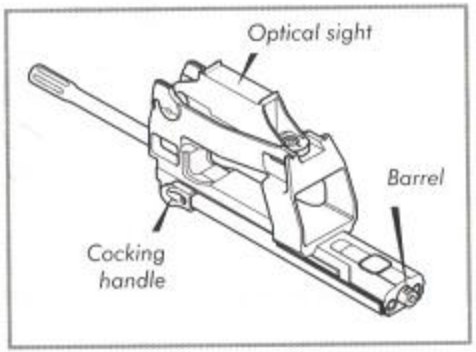
❖ Carry out the field stripping procedure (refer to § 5.1).

### Barrel support and optical sight group

- Using a cleaning brush or a spray, apply solvent inside the bore of the barrel and let the product work a few minutes.
- Using a cleaning rag holder and clean rags (pieces of flannel), remove the functional lubricant, the solvent and the residues from the bore of the barrel until the last rag is clean.
- When the barrel is clean, again use a piece of flannel, this time moistened with maintenance lubricant, to protect the bore of the barrel until the next use.

  *Please note that the bore of the barrel should be wiped dry before shooting (also refer to § 6.1).*

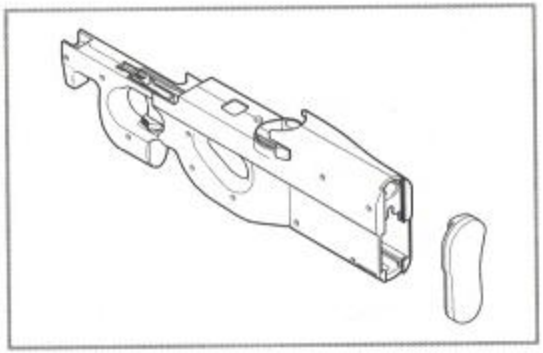
- Clean the barrel support and optical sight group with a soft cloth.




Never apply lubricant to the optical sight.

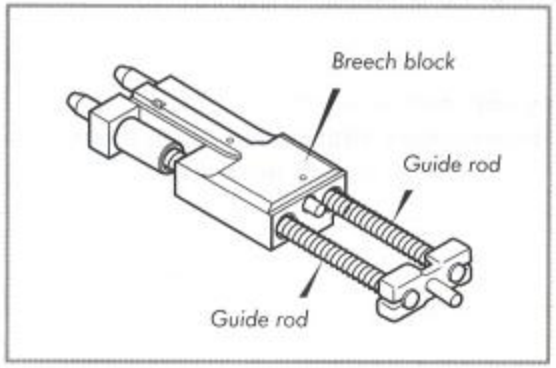
### Frame and trigger group

- Clean with a soft, dry cloth. If necessary, use water or a soft solvent.



### Moving parts group

- Using a cleaning brush and solvent, remove any carbon and other deposits.
- If necessary, rinse in a soft solvent and then dry by using a soft cloth.
- Move the breech block rearwards along its guide rods and then clean the guide rods.

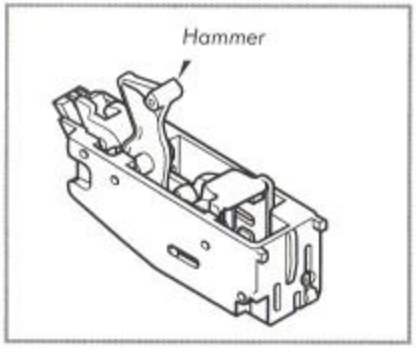



- Slightly lubricate the moving parts group with maintenance lubricant at the points indicated in § 6.1.

## Hammer group

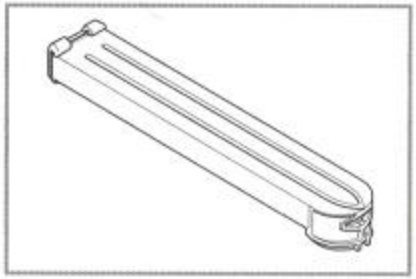
Components of the hammer group may never be lubricated : the presence of a lubricant inside the hammer group could cause malfunctions.

- Clean with a soft, dry cloth. If necessary, use water.




## Magazine

- Clean with a soft, dry cloth.



*If the magazine is very soiled, disassemble it and then clean its parts by using water.*

*Please note that a (reduced capacity) 10-round magazine cannot be disassembled.*

Never use any kind of solvent on the magazine.

Components of the magazine may never be lubricated : the presence of a lubricant inside the magazine could cause malfunctions.

❖ Reassemble the carbine.

## 7. TAKING CARE OF THE CARBINE

☑ Always keep the carbine in immaculate condition and good working order.

☑ Always clean and lubricate the carbine after use.

☑ Regularly inspect the carbine, its parts and the accessories.

*If something seems abnormal, don't hesitate to report it to your dealer / departmental armorer.*

☑ Never modify or repair parts of your carbine (or any other one) by yourself.

**Your carbine is a mechanical device subject to wear and which will not last forever : it requires periodic inspection, adjustment and service.**

**The carbine should be checked every 10000 rounds and/or once a year because damage, wear, corrosion, ... are not always visible from the outside. For that purpose, send the carbine to your dealer.**

**Law enforcement personnel has a departmental armorer which will inspect the carbine on a yearly basis.**

**FN HERSTAL cannot assume any responsibility for injuries caused by unauthorized servicing, alterations or modifications to its firearms.**

## 8. TROUBLESHOOTING

Before any intervention on the PS90 Carbine, ensure to be familiar with the safety information given in chapter 1 of this owner's manual.

❖ Ensure that the fire selector is not at the position 'S' (safe).

❖ Ensure that the carbine has been cocked.

❖ Check if the carbine has correctly been reassembled.

❖ Remove the magazine and check the magazine feeding opening as well as the chamber.

❖ Ensure that the inside of the carbine is not excessively soiled (sand, mud, ...).

If the problem is still not solved, the carbine should be restricted for further use and examined by your dealer / departmental armorer.

## 9. OTHERS

### Sight adjustment

Refer to the instructions supplied with the sight adjustment tool (also refer to § 10).

### Lubricants and solvents

FN HERSTAL recommends using lubricant Nycolube 127 CLP or equivalent (reference US MIL - PRF63460 or NATO S-758).

*For the US Market, CLP is available under the following names and trademarks :*

- *CLP-NC by BREAK-FREE INC*
- *SENT-CLP by SENTINEL CANADA*
- *ROYCO-634 by ROYAL LUBRICANTS Co, INC*

*Be aware that some solvents can be harmful to the surface finish of the carbine, so consult your dealer / departmental armorer.*

### Disposal

Strictly observe the current national legislation concerning the disposal of carbines, return the carbine to your dealer / departmental armorer or, if it is not contrary to the current national legislation, send it back to FN HERSTAL.

## 10. ACCESSORIES

- 10-, 30-, 50-round magazine
- Sight adjustment tool
- Optical sight (black reticle)
- Picatinny rail
- Side Picatinny rails
- Visible laser
- Infrared laser
- Tactical light
- Firearm sling
- Magazine pouch
- Empty case collector

## 11. TECHNICAL SPECIFICATIONS

### Carbine

| | | |
|---|---|---|
| Operating principle | : | Blowback mechanism firing from closed breech |
| Caliber | : | 5.7 x 28 mm |
| Firing mode | : | Single-shot |
| Trigger pull | : | 2.5 to 4.5 daN |
| Weight | : | With empty 30-round magazine : 6.61 lb (3.0 kg) |
| | | With full 30-round magazine : 7.05 lb (3.2 kg) |
| Length | : | 26.3" (667 mm) |
| Height | : | 8.3" (210 mm) |
| Width | : | 2.3" (59 mm) |
| Barrel length | : | 16.1" (408 mm) |
| Rifled length | : | 14.8" (376 mm) |
| Number of grooves | : | 8 |
| Twist direction | : | Right-hand |
| Magazine capacity | : | 30 rounds |
| Max. effective range | : | 200 m |

### 5.7 x 28 mm ammunition

| | | |
|---|---|---|
| Types of ammunition | : | Civilian and sporting use : SS195, SS196, SS197 |
| | | Restricted ammunition : SS190, SS191, SS193 |
| | | *The restricted ammunition (armor piercing) is sold only to Law Enforcement and Military Agencies and is only released and shipped from a U.S. Customs controlled Customs Bonded Warehouse (CBW) upon BATFE and U.S. Customs approval.* |
| Chamber pressure | : | 345 Mpa |

*All specifications subject to changes without notice.*